

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: NORTHEAST POND	Lake Area (ha):	228.48
Town: MILTON	Maximum depth (m):	12.2
County: Strafford	Mean depth (m):	2.3
River Basin: Coastal	Volume (m ³):	5218000
Latitude: 43°26'54" N	Relative depth:	0.7
Longitude: 70°57'57" W	Shore configuration:	1.98
Elevation (ft): 415	Areal water load (m/yr):	65.77
Shore length (m): 10600	Flushing rate (yr ⁻¹):	28.80
Watershed area (ha): 29597.5	P retention coeff.:	0.31
% watershed ponded: 3.4	Lake type:	natural w/dam

BIOLOGICAL:

26 February 1996

6 September 1995

DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBRYON 90%	CHRYSPHAEERELLA 55%
	#2	SYNURA 5%	RHIZOLENIA 10%
	#3		DINOBRYON 10%
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			1.45
DOM. ZOOPLANKTON (% TOTAL)	#1	POLYARTHRA 31%	KERATELLA 42%
	#2		NAUPLIUS LARVA 19%
	#3		CYCLOPOID COPEPOD 15%
ROTIFERS/LITER		10	52
MICROCRUSTACEA/LITER		<1	31
ZOOPLANKTON ABUNDANCE (#/L)		13	89
VASCULAR PLANT ABUNDANCE			Scat/Common
SECCHI DISK TRANSPARENCY (m)			5.0
BOTTOM DISSOLVED OXYGEN (mg/L)		6.8	0.5
BACTERIA (E. coli, #/100 ml)	#1		< 1
	#2		1
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m):	7.0
Hypolimnion volume (m ³):	224500
Anoxic volume (m ³):	287000

CHEMICAL:		Lake: NORTHEAST POND Town: MILTON				
	26 February 1996		6 September 1995			
DEPTH (m)	4.0	8.0	3.5	7.5	10.5	
pH (units)	6.1	6.0	7.2	6.6	6.4	
A.N.C. (Alkalinity)	5.1	7.9	10.0	10.4	12.5	
NITRATE NITROGEN	0.09	0.09	< 0.10	0.09	< 0.10	
TOTAL KJELDAHL NITROGEN	0.10	0.10	0.35	0.31	0.31	
TOTAL PHOSPHORUS	0.008	0.009	0.008	0.011	0.012	
CONDUCTIVITY (µmhos/cm)	95.6	97.5	74.9	71.3	75.3	
APPARENT COLOR (cpu)	48	48	28	38	95	
MAGNESIUM			0.89			
CALCIUM			4.5			
SODIUM			8.4			
POTASSIUM			0.63			
CHLORIDE	8	10	13	13	12	
SULFATE			4	4	4	
TN : TP	24	21	44	36	26	
CALCITE SATURATION INDEX			2.4			
All results in mg/L unless indicated otherwise						
TROPHIC CLASSIFICATION: 1995						
	D.O.	S.D.	PLANT	CHL	TOTAL	CLASS
	4	2	2	0	8	Meso.
COMMENTS:						
<ol style="list-style-type: none"> 1. This is a wide deep area in the Salmon Falls River that is raised by the dam in Milton. It is upstream of Milton and Townhouse Ponds which are also raised by the same dam. The three impoundments are sometimes referred to as Milton Three Ponds. 2. This pond was previously surveyed and classified in 1980. There was no change in the assigned trophic class and little change in water quality between the two years. The water clarity was better and the chlorophyll less in 1995, but more data is needed before a trend can be determined. 3. A good launch site was present at the Townhouse Road bridge, which crosses the pond's outlet. 4. Most of the shoreline was developed and many houses had private beaches. 						

Northeast Pond Milton



0 1.0
km

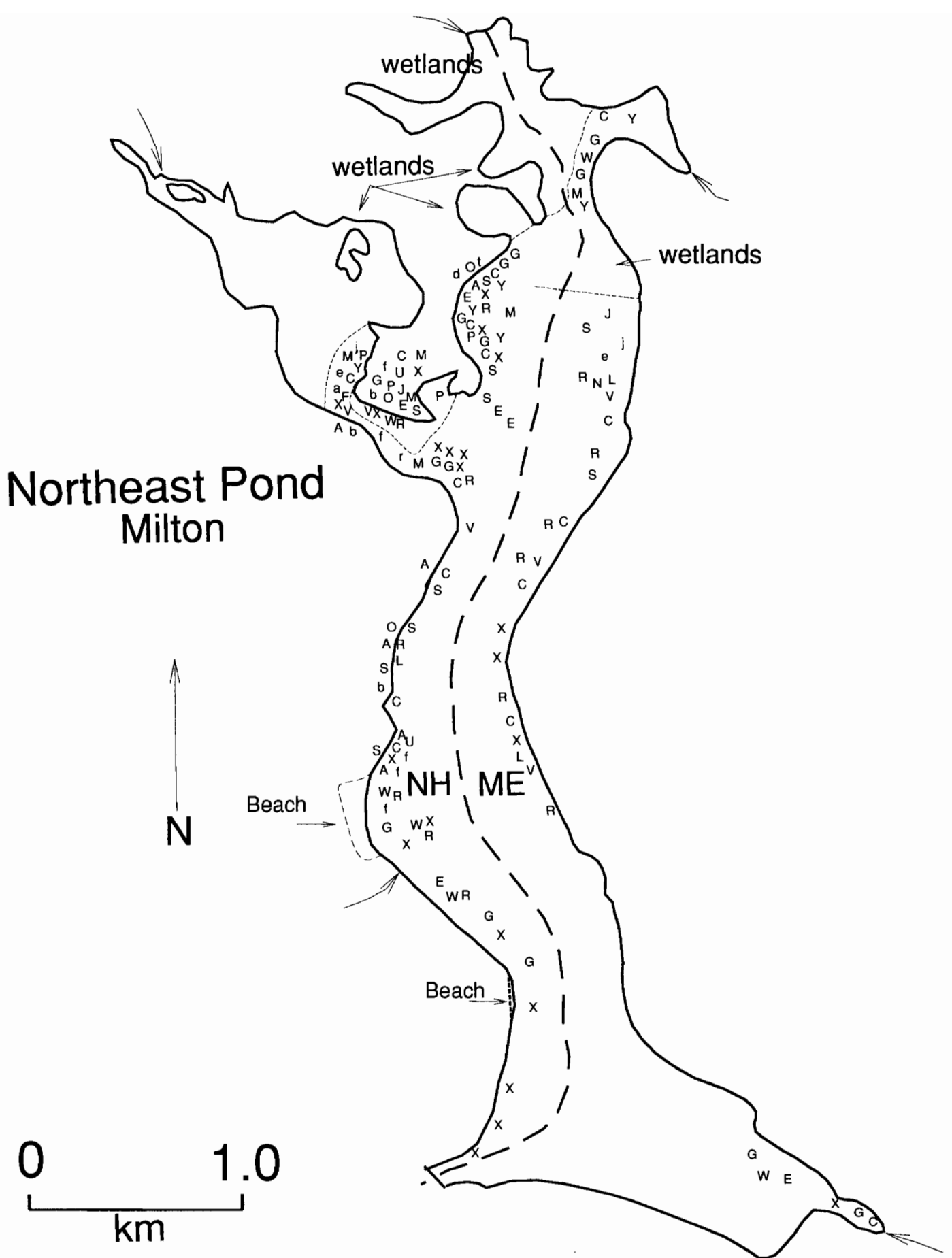
10 foot depth contours

NH ME

Launch

Launch and
Picnic Area

[illegible]



AQUATIC PLANT SURVEY

LAKE: NORTHEAST POND

TOWN: MILTON

DATE: 09/06/95

Key	PLANT NAME		ABUNDANCE
	GENERIC	COMMON	
X		Sterile thread-like leaf	Common
G	Gramineae	Grass family	Common
W	Potamogeton	Pondweed	Scat/Common
R	Potamogeton robbinsii	Robbins pondweed	Common
E	Eriocaulon septangulare	Pipewort	Sparse
f	Chlorophyceae	Filamentous green algae	Scattered
S	Sparganium	Bur reed	Common
A	Sagittaria	Arrowhead	Sparse
C	Cyperaceae	non-flowering sedge	Scattered
U	Utricularia	Bladderwort	Scattered
b	Scirpus	Bulrush	Common
L	Potamogeton perfoliatus	Pondweed	Sparse
O	Cephalanthus occidentalis	Buttonbush	Sparse
V	Vallisneria americana	Tape grass	Common
r	Eleocharis	Spike rush	Sparse
M	Megalodonta Beckii	Water marigold	Common
J	Juncus	Rush	Common
P	Pontederia cordata	Pickernelweed	Common
d	Dulichium arundinaceum	Three-way sedge	Scattered
Y	Nuphar	Yellow water lily	Common
F	Nymphoides cordatum	Floating heart	Sparse
a	Potamogeton amplifolius	Bass weed	Common
T	Typha	Cattail	Common
e	Elodea nuttallii	Waterweed	Sparse
t	Scirpus americanus	Three-square	Sparse
j	Najas	Bushy pondweed	Sparse

OVERALL ABUNDANCE: Scat/Common

GENERAL OBSERVATIONS:

1. Plants were relatively sparse in the main body of the pond. The northern and northwestern coves are essentially wetlands--the dense plant growth and shallow water prohibits navigation.
2. Clouds of filamentous algae were around the entire shoreline and were abundant in some of the coves.
3. Adult loons and chicks were observed; bryozoans were present in the wetland areas.
4. Sweet gale, leatherleaf and swamp loosetrife were abundant along the shores of the wetland areas.